

POLLEN ON YOUR NOSE

WILDFLOWERS OF JOSHUA TREE NATIONAL MONUMENT



text by
Penny Knuckles

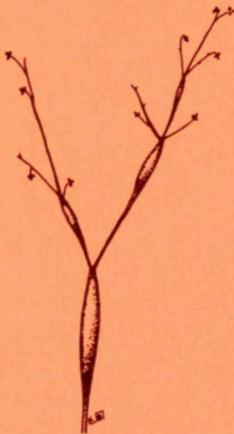
drawings by
Dennis Knuckles

An everchanging display of desert wildflowers delights many a spring visitor. The permanent animal residents of Joshua Tree National Monument also appreciate an abundant bloom of flowers.

The Beechey ground squirrel, feasting on fiddleneck leaves, anticipates a bountiful fall harvest of seeds and fruits. A desert tortoise, lumbering from plant to plant, munches a fresh dandelion salad. The chuckwalla eyes with greed the spring crop of globemallow, a welcome change from his fall diet of tough creosote bush leaves. Although a coyote may choose to ignore the beauty of the delicate filaree blossom, he nevertheless enjoys a meal of cottontail rabbit fattened on the plant's leaves.

You probably do not look at the wildflowers with the idea of eating them, but take a hint from the animals. Change your vantage point to correspond with the stature of the plants. This may be difficult with the "belly plants," which require that you lie on your stomach to even see them. With a magnifying glass, you can make a brief excursion into a world of miniature beauty that is normally crushed underfoot. Consider it a compliment to your skill as an observer when someone grins at you and says, "You have pollen on your nose!"

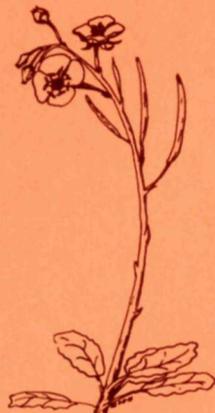
YELLOW



DESERT TRUMPET *Eriogonum inflatum* Buckwheat Family
The oddly inflated stems of the desert trumpet catch the eye of the most casual traveller. The main stem abruptly ends in a hollow, swollen node. From there, three more stems continue outward, each ending in its own inflated node. This branching may continue several times, with each stem a miniature of the last, until the plant is 30 inches tall and nearly as wide. At each node, a tiny cluster of flowers tops one or more slender stalks. Six petals form a flat, shiny star. The broad, oval leaves lie flat at the base of the stem. Rocky flats throughout the Monument. March through June.

Drawing by Susie Bower.

YELLOW CUPS *Oenothera brevipes* Evening Primrose Family
Brilliant yellow flowers 1 inch in diameter evenly spaced along the top of the 1½-foot stem characterize yellow cups. Four petals form the cup, and tiny red speckles fleck the base of each petal. The broad leaves are grayish-green, mottled with dark green. Common on very rocky hillsides, yellow cups lends a yellow sheen to Cottonwood Canyon in March. Wilson Canyon, Indian Cove.



FIDDLENECK *Amsinckia tessellata* Forget-me-not Family
The arrangement of bright yellow flowers in pairs along a stem curved like the neck of a fiddle gives this plant its name. Only a few of the 5-petaled, tiny flowers bloom at one time. Each petal may be dotted with orange at its base. The leaves, 2 inches long, sometimes twist and curl in toward the stem. White spots appear on the dead brown leaves at the base of the plant. Long white stiff hairs densely cover the leaves and 1½-foot high stem; they can become embedded in careless fingers. Rocky areas: Pinto Wye to Hidden Valley, Indian Cove. March through April.

COYOTE MELON *Cucurbita palmata* Gourd Family
Until you notice the foul odor of its gourd when cut, coyote melon is an attractive surprise. The large, yellow blossoms often look wilted, their five fused petals drooping inward. The maple-like leaves have several pointed lobes. Long stems trail 6-8 feet on the ground from a central point. Green melons the size of softballs appear in early summer, turning yellow by fall. Even the coyotes will not eat them! Roadsides throughout the Monument. April through October.

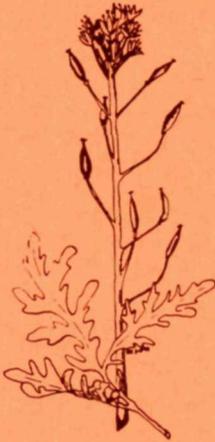


BLAZING STAR

Mentzelia spp.

Loasa Family

Although the plant itself may seem quite weedy, the small flowers of blazing star are very symmetrical and attractive. Each of the five petals has a slightly pointed tip; an orange line at its base creates a thin circle of contrasting color inside the golden blossom. The white color of the lanky, branched stems distinguishes blazing star from golden gilia. The plant may stand 1 foot tall with branches spreading over an even greater area. A long, sparsely toothed leaf clings to the stem of each new branch. Prickly hairs cover the leaves. Sandy flats: Pinto Wye, Hidden Valley, Indian Cove. Mid-April through May.



TANSY MUSTARD

Descurainia pinnata spp.

Mustard Family

Several members of the mustard family reside in the Monument, but yellow tansy mustard is the most common. The tiny flowers appear to have eight petals; only four of these, arranged in a cross, are true petals. The fruit, unique to the mustard family, is long, thin and cylindrical in shape. The plant is 1 foot or more in height. It is generally arranged with flower clusters at the top, fruits below on individual stalks, and leaves, finely cut into many lobes, lower still on the stem. Roadsides and campgrounds throughout the Monument. March through mid-April.

GOLDEN GILIA

*Linanthus aureus**

Phlox Family

This 5-inch plant has golden flowers with five overlapping, slightly pointed petals. Orange pollen may obscure the dark brown coloration of each flower throat. Blossoms are perfectly symmetrical. Branched reddish-brown stems, which are extremely slender, support 8-10 small flowers. Stiff, pointed leaves, covered with hairs, occur in triplets at the junction of each new stem. Leaves at the base of the plant may be reddish. Sandy flats: Pleasant Valley, Indian Cove. Mid-April through mid-May. **Gilia aurea* by some authors.



GOLD-POPPY

Eschscholzia spp.

Poppy Family

Four bright yellow petals identify the flowers of the gold-poppy. Grayish-green leaves arise from the base of the plant; they have many lobes and look similar to parsley leaves. The numerous slender stems, 4-8 inches tall, are devoid of leaves. Each supports a single blossom. Flowers of the desert gold-poppy are at least 1 inch in diameter, while those of the little gold-poppy are half that size. Gravel flats: Pinto Basin, Cottonwood Canyon, Indian Cove. March.

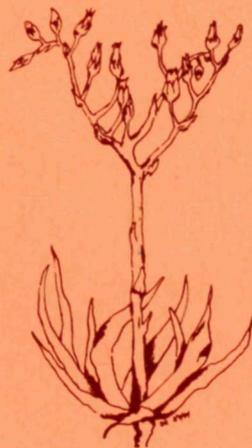
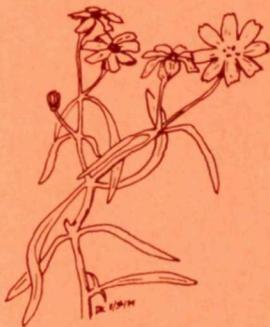
YELLOW

LIVE-FOREVER

*Dudleya saxosa**

Stonecrop Family

In early spring, visitors to Barker Dam are surprised to find a remarkable plant with pink leaves and stems springing from invisible cracks in the rocks. By mid-April, tiny yellow 5-petaled flowers, which never seem quite open, appear. A matching set of pink leaves surrounds each flower tube. The thick succulent leaves occur mostly at the base of the plant, although some alternate up the 1-foot-high stem. The leaves eventually turn grayish-green in color. Rocks: Hidden Valley, White Tank. **Echeveria saxosa* by some authors.



CHINCHWEED

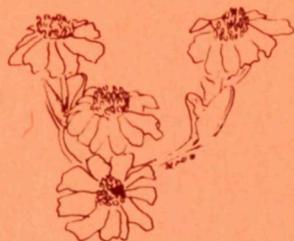
Pectis papposa

Sunflower Family,

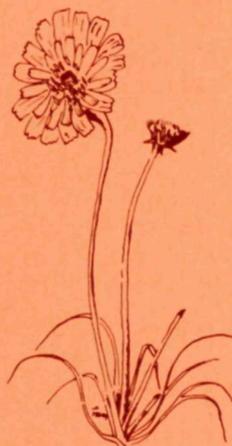
After summer rains, tidy 6-inch bouquets of chinchweed appear in sandy washes. The bright yellow blossoms contrast vividly with brilliant green foliage and reddish stems. Numerous leaves are long, narrow, and blunt, sometimes with sparse teeth along their edges. Oil glands throughout the plant produce a strong, though not unpleasant, scent. Washes throughout the Monument. June through September.

DESERT DANDELION *Malacothrix californica* Sunflower Family

Large clumps of desert dandelion commonly paint vast areas of desert a bright yellow. The flower carpets appear at the lower elevations near Cottonwood Spring and Twentynine Palms in early March and meet at Belle Campground as spring progresses. A circle of dark yellow petals near the center of each flower contrasts with the paler yellow petals surrounding it and with the red that may dot the exact center. One flower blooms on each erect, leafless stem. The long, grassy-looking leaves cluster at the base of the 15-inch stems and turn a striking red by late April. Common throughout the Monument.



life size

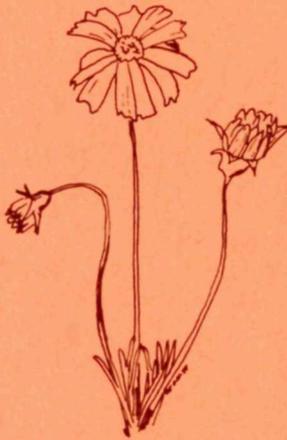


ERIOPHYLLUM

Eriophyllum Wallacei

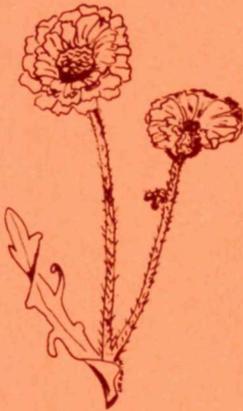
Sunflower Family

A sprinkling of yellow hugging the desert floor — this is the eriophyllum. Its presence heralds the coming of the spring flower carpets. The ½-inch flowers are bright yellow with numerous broad petals. The darker yellow center of the flower seems ready to spill onto the surrounding petals. The spatula-shaped leaves cling vertically to the stem, and dense woolly white hairs cover both leaves and stems. The blossoms may completely hide the underlying foliage. Brushy slopes and banks of washes throughout the Monument. March through May.



COREOPSIS *Coreopsis Bigelovii* Sunflower Family
 Coreopsis resembles a tall version of the eriophyllum. Numerous dark yellow petals radiate from an orange center and are rectangular in shape with three scallops at the outside edges. Individual flowers perch atop 6- to 8-inch red leafless stems, of which there may be 5 or 25 in a clump. At the base of the plant are numerous grass-like leaves which may be straight or slightly curly. Rocky flats: Wilson Canyon, 29 Palms Entrance to Pinto Wye. March through early April.

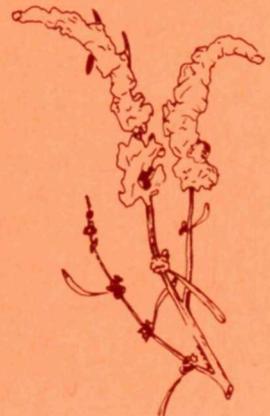
SCALE BUD *Aniscoma acaulis* Sunflower Family
 This handsome sunflower is creamy yellow. Red-lined petal-like scales add color to the outside of each flower. To distinguish scale bud from desert dandelion, look for the scales enclosing the buds. These, grayish-pink with red speckles, are sometimes outlined in red. The 3- to 4-inch erect stems arise from a low rosette of grayish leaves with scalloped edges. Roadsides: 29 Palms Entrance to Pinto Wye, Indian Cove, Pleasant Valley. March through early April.



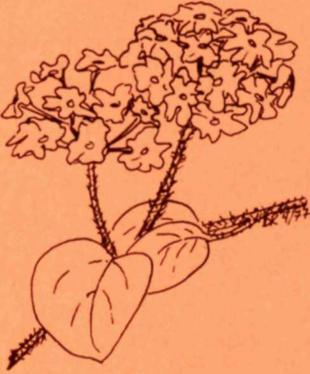
WOOLLY MARIGOLD *Baileya pleniradiata* Sunflower Family
 This attractive, yellowish-orange sunflower grows in large clumps, 1 foot high, containing numerous stems and blossoms. Several layers of short, broad petals comprise half of the fluffy, 1½-inch flower. The orange center makes up the other half. One flower tops each stem. The leaves, finely lobed, droop downward and are concentrated near the base of the plant, although a few find their way up the stems. A thick covering of short hairs adds a silver sheen to the foliage. Sandy flats: Hidden and Lost Horse Valleys. Late April through May.

FRINGED AMARANTH *Amaranthus fimbriatus* Amaranth Family
 After summer rainstorms there appear 1-foot-high plants bearing rose to lavender flowers. The rosy coloration is due not to petals, which are absent, but to five conspicuous specialized leaves called sepals. These are toothed along their edges. Many of the flowers, interspersed with narrow leaves, cluster along the top of the slender, wand-like stem. Roadsides throughout the Monument. May through September.

PINK/PURPLE

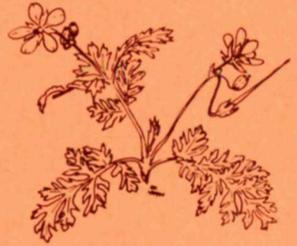


PINK/PURPLE

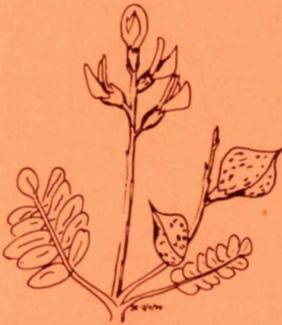


SAND-VERBENA *Abronia villosa* Four o'Clock Family
Large areas in Coachella Valley glow bright pink with sand-verbena throughout the spring. Each blossom resembles a star, with five notched petals radiating from the white center. The arrangement of 20-40 flowers in a cluster amplifies this effect. The grayish-green leaves are spatula-shaped. Stems, pinkish immediately below the flower heads, turn yellow near the ground. Leaves and stems are both hairy. Plants trail along the ground and display their flowers 5-6 inches high. Sandy areas: Pinto Basin. March.

FILAREE (Heron's-bill) *Erodium cicutarium* Geranium Family
This rosy pink flower, nestled in its dark green, low-spreading stems and leaves, carpets the High Desert valleys during March and April. The plants form a loose mat interspersed with numerous blossoms. The five petals of each flower are loosely attached to the reddish stem. Leaves are subdivided several times into lobed, pointed leaflets, giving them a ferny appearance. The seed, 1½ inches in length, is slender and pointed like the bill of a heron. Large numbers of seeds, each pointed skyward, are conspicuous after the flowers drop off. Common everywhere throughout the Monument.



life size



LOCOWEED *Astragalus* spp. Pea Family
A low, spreading plant, locoweed has flowers ranging in color from deep pink to lavender. Older flowers are blue. Two upright petals striped pink and white and three lower petals comprise the asymmetrical blossom. Stout stems, striped with red, radiate irregularly for 1-2 feet over the ground. Placed opposite each other along the stems are numerous small leaflets, oval in shape and creased upward. One-inch inflated pods, light yellow, dappled with red, are spherical in shape with pointed tips. Roadsides: Queen and Lost Horse Valleys. April through early May.

DESERT CALICO *Langloisia Matthewsii** Phlox Family
Viewed through a magnifying glass, the desert calico justifies its name. The 5-petaled flowers are asymmetrical; delicate shades and speckles of white, pink and red color each petal. The green or red leaves are broadly toothed, with a spine decorating the tip of each tooth. The entire plant, including several flowers, may be only 1½-inches high and 2-4 inches across. Sandy banks throughout the Monument. April through May. **Gilia Matthewsii* by some authors.



one-and-one-half times life size

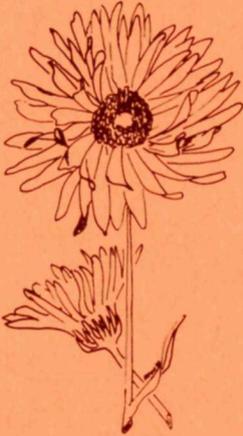
PINK/PURPLE

MITRA

Stephanomeria exigua

Sunflower Family

Mitra, a 12- to 15-inch plant bearing faint pink flowers fading to white, brings the spring season to a close. The 6-8 petals, lined with conspicuous veins, are scalloped along their outer edges. Numerous stems tilt upward off the main stem, giving the plant a decidedly spindly appearance. A grayish-green leaf with long teeth decorates the junction of each new stem. Tiny leaf-like structures also occur on the flower stems. Roadsides throughout the Monument. Early May.



MOJAVE ASTER *Machaeranthera tortifolia** Sunflower Family

The 3-inch lavender flower of the Mojave aster dwarfs all other sunflowers of the desert. A hundred or more outer petals contrast vividly with the deep yellow center of the blossom. The slender, light green stems form a large clump, 2-4 feet high. The sticky, stiff leaves are twisted and sharply pointed with long teeth along their edges. Rocky slopes throughout the Monument above 2500 feet. April through early May. **Aster abatus* by some authors.

PURPLE MAT

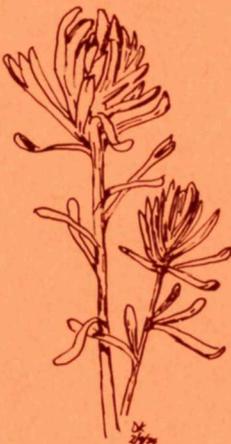
Nama demissum

Waterleaf Family

Deep pink rather than purple colors this 1/4-inch flower. The five petals are fused at the base, forming a flower as deep as it is wide. Each flower throat is white. Leaves are 1/2-inch long and slender, with blunt tips. Stems, low growing and spreading, sometimes form a thick mat containing hundreds of individual flowers. In lean years, the tiny plants may boast only one or two blossoms. Gravelly or sandy flats throughout the Monument. March.



life size



RED/ORANGE

DESERT PAINTBRUSH *Castilleja chromosa* Figwort Family

In early spring, a splash of red tucked among the boulders calls attention to the desert paintbrush. The long leaves are folded upward along the central vein and are covered with fine hairs. Lower leaves along the 1-foot high stem are green, becoming scarlet near its top. The actual flowers, completely hidden by the red leaves, are small, green and tubular in shape. Rocky areas: Hidden Valley, Belle, White Tank, Jumbo Rocks. Mid-March through April.

RED/ORANGE

DESERT MARIPOSA *Calochortus Kennedyi* Lily Family

The Spanish word *mariposa*, meaning butterfly, is an apt description for this late-blooming orange desert lily. Blackish-red patches at the base of each brilliant petal add still more color to the 1½-inch showy flower. The grayish-green leaves are long and strap-shaped, often curling downward. The erect stem, usually several inches high, supports from one to six blossoms. Rocky soil: Lost Horse Valley, Sheep Pass. May.



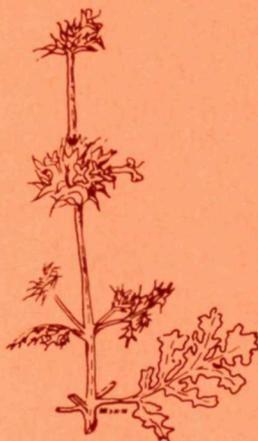
DESERT MALLOW *Sphaeralcea ambigua* Mallow Family

Brilliant reddish-orange flowers create a mass display on the waist-high shrubby desert mallow. The rough, grayish leaves contrast sharply with the delicately cupped flowers. The crinkly leaves are somewhat triangular-shaped with broad teeth along the edges. Several flower buds develop on stalks at the junction of a leaf with the main stem; later on, the leaf may drop off. The stems are thick and yellowish-green in color. Roadsides throughout the Monument. March through May.

BLUE

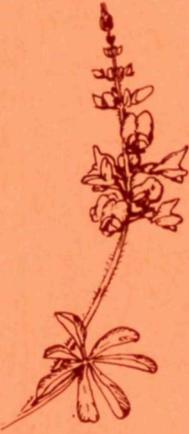
AMSONIA *Amsonia brevifolia* Dogbane Family

The unusual coloration of amsonia blossoms attracts immediate attention. The blue flowers with their greenish centers appear faded even as they open, although the twisted buds promise a deeper blue. There may be five long, pointed petals which fuse near the base of the flower. The loose flower head contains ten to twenty blossoms that contrast sharply with the dark green shiny leaves. Stems, 1-1½ feet high, form a clump; they exude a milky sap when broken. Gravel flats: Barker Dam, Queen Valley. April.



CHIA *Salvia Columbariae* Mint Family

Scattered among the spring flower carpets are maroon-colored heads of flowers on erect 10-inch stems. Only a few of the tiny flowers bloom at any one time. The asymmetrical flowers have fused, irregular petals with scalloped edges. White or purple spots add variety to each miniature blossom, which ranges in color from dark blue to lavender. The lobed leaves, rough in appearance and somewhat hairy, are placed opposite each other along the square stem. Sitting in a patch of chia, you can readily detect a faint skunk-like odor. Common throughout the Monument. March through mid-April.



LUPINE

Lupinus spp.

Pea Family

Several lupines, ranging in height from a few inches to 2½ feet, grow in the Monument. Most have hairy leaves and stems. Each leaf consists of 5-7 long leaflets radiating from one central point. All of the lupines have asymmetrical flowers ranging from blue to deep purple in color. Pink or yellow may decorate the two upper petals; two fused lower petals hide the fifth, a long folded beak. Numerous flowers, spaced along the top of the stem, open simultaneously. Roadsides and disturbed flats throughout the Monument. March through late April.

DESERT GILIA

*Eriastrum spp.**

Phlox Family

With delicate blue, almost white flowers, this gilia blooms in late spring. Deep lavender "V's" mark the lower veins of some petals, making the 5-petalled flowers appear asymmetrical. The petals are fused into a long purple tube at the base. Several flowers bloom at once in a fuzzy, globular clump atop each branched stem. The straight, stiff leaves have four long teeth and are covered with tiny woolly hairs. The 3- to 5-inch stems are red or brown in color. Rocky flats, roadsides: Pinto Wye, Lost Horse Valley, Indian Cove. Late April through May. **Gilia spp.* by some authors.

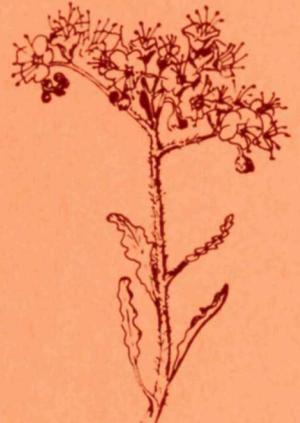


CANTERBURY BELL *Phacelia campanularia* Waterleaf Family

The rich, deep blue color of its 1-inch flowers distinguishes canterbury bell from all other desert plants. Five fused petals, each decorated with its own white stripe and spot, flare outward into a bell. The inside of each blossom is slightly hairy. Numerous flowers alternate along the 1-foot high reddish stem, which is dotted with tiny amber-colored glands. Buds nod toward the ground. Leaves, somewhat heart-shaped with broadly toothed edges, are fuzzy on top and hairy underneath. Rocky areas throughout the Monument. Late March through April.

PHACELIA *Phacelia tanacetifolia*, *P. crenulata* Waterleaf Family

The phacelias, sometimes referred to as "scorpionweeds," have curling flower heads reminiscent of the arched tail of a scorpion. The light blue flower of lacy phacelia contrasts vividly with the dark green of the creosote and other shrubs under which it usually grows. Stems, up to 2½ feet high, are very long and brittle, as are the leaves. Notch-leaved phacelia, deep purple in color, grows among the rocks of steep hillsides. The leaves and 15-inch stems are very hairy and, when bruised, emit a rank odor. Some people develop a rash on contact with this plant. Late March through April.



WHITE



BROWN-EYED PRIMROSE

Evening Primrose Family

Oenothera clavaeformis

The easiest way to recognize brown-eyes is simply to walk through a clump of it. The sticky pollen will adhere in long strands to shoes and clothing. The reddish-brown center of each blossom, just visible below the four white petals, gives the plant its name. Several flowers may bloom at once atop the 8-inch stem. The broadly toothed leaves, occurring at the base of the plant, have a sticky texture. Gravel flats: Wilson and Cottonwood Canyons. March.

CALIFORNIA PRIMROSE

Evening Primrose Family

Oenothera californica

At 45 miles per hour, the large white flowers of the California primrose resemble stray kleenex blown along the roadside. The 3-inch flowers have four broadly heart-shaped petals loosely attached to a hairy flower stalk. Buds and old flowers are pink. The leaves, up to 4 inches long, are thin and scalloped along the edges. In a larger cousin, the dune primrose, the light green stems, tough and hairy, radiate from a common center; when dried, these form a "birdcage." Sandy areas: Lost Horse Valley. April.



WOODY BOTTLE-WASHER

Evening Primrose Family

Oenothera decorticans

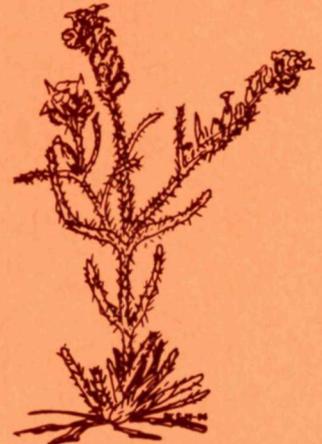
Look for woody bottle-washer, along with brown-eyed primrose, interspersed among the spring dandelion carpets. As in the other evening primroses, four drooping white petals frame the long, protruding yellow stigma. Red flower buds as well as red-outlined leaves add a touch of brilliant color. The long, tapered leaves are densely interspersed among the flowers along the top of the 8-12 inch drooping stem. As the thick, light-colored stems dry, they curl into a miniature version of a "birdcage". Leaves drop off and seed capsules dry into a bristly "brush" by May. 29 Palms Entrance, Wilson Canyon. March.

WHITE FORGET-ME-NOT

Forget-me-not Family

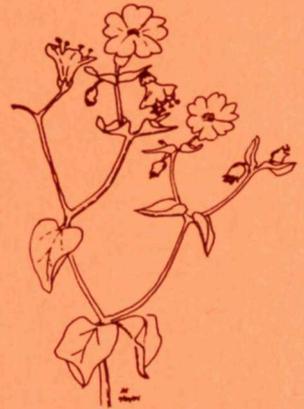
Cryptantha spp.

At first glance, these tiny forget-me-nots may not seem to have any blossoms at all. A white sheen, due to numerous transparent hairs, tends to obscure the flowers. Less than 1/32 inch in diameter, the flowers have yellow centers and five white petals fused at the base. Paired buds are arranged along the top of a downward curled stem, the lower portion of which turns brown. The entire plant may be 2 inches high; a larger version of forget-me-not which appears in late April may be 7 inches tall with 1/4-inch flowers. Common everywhere throughout the Monument. March through May.



three times life size

WISHBONE *Mirabilis Bigelovii* Four o'Clock Family
 Numerous forked stems, each resembling a wishbone, give this plant its name. The delicately frilled white flowers have five notched petals. Two thick, heart-shaped leaves are found at each fork in the stem. All of the foliage, dull green in color, is quite sticky. Most of the stems lie close to the ground, although some may stand 8-12 inches in height. Rocky flats: Belle and White Tank Campgrounds. Late March through May.

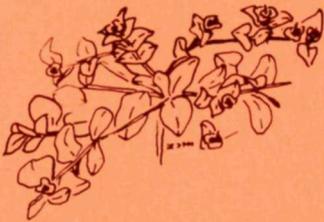


SAND BLAZING STAR *Mentzelia involucrata* Loasa Family
 A translucent creamy-yellow, the 1½-inch flower of the sand blazing star has a striking, satiny appearance. Each of its five petals is pointed and has salmon-colored veins at its base. The flowers are as deep as they are wide. The white stems, thick and hairy, branch from the base of the plant, forming a clump 15 inches high. The leaves have ragged, saw-toothed edges; their texture is rough, like sandpaper. Steep rocky slopes: Pleasant Valley, Wilson Canyon. April through early May.

JIMSONWEED *Datura meteloides, D. discolor* Potato Family
 In a land of tiny desert plants, the broad green leaves and large showy flowers of jimsonweed seem extravagant. The five petals, fused into a trumpet-shaped flower, are white, sometimes tinged with violet. Opening at night, the flowers often droop by morning. The undersides of the leaves are gray with short hairs, as are the purple stems. All parts of the plant are poisonous. Clumps of jimsonweed, 2-4 feet tall, appear in April and last through mid-winter. Roadsides throughout the Monument.



Drawing by Vic Koch



twice life size

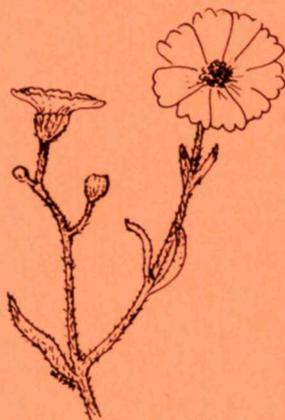
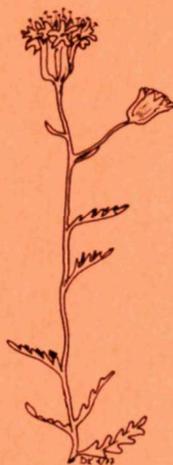
SAND MAT *Euphorbia spp.* Spurge Family
 From the normal vantage point of 5 feet, sand mat looks like a sprinkling of white upon a dark green leafy background. With closer inspection, the white resolves itself into 4 leaves arranged in a broad horseshoe around a recessed maroon center. These "flowers" are scarcely more than 1/16 inch in diameter. The red stems, sprawling flat in a thick mat, support dull green leaves, round to slightly heart-shaped. A milky juice flows from the stems if they are broken. Banks of sandy washes throughout the Monument. April through May.

WHITE



DESERT STAR *Monoptilon bellioides* Sunflower Family
Scattered like neglected little bouquets, the handsome desert stars hug the ground on the banks of washes. Long hairy leaves cradle each white, dime-sized flower. Light-colored stems may radiate out along the ground or form a tight clump. An early bloomer, desert star occurs with other sunflowers in the March flower carpets. Desert pavement, rocky banks throughout the Monument.

PINCUSHION *Chaenactis* spp. Sunflower Family
Lacking the long petals found in many other sunflowers, the various types of pincushion flowers are dense clusters, 1-inch across, of tiny white blossoms. The central flower parts protrude like pinheads beyond the five petals of each tiny blossom. Leaves are linear and sometimes lobed; stems eventually turn red. Pincushion grows up to 1 foot in height. Probably the most abundant flower in the Monument, it dominates flower carpets late in the spring after the desert dandelion has bloomed. Late March through mid-May.



TIDY-TIPS *Layia glandulosa* Sunflower Family
A yellow center surrounded by trilobed, overlapping white petals distinguishes tidy-tips from other desert sunflowers. The plant is 4-6 inches tall, each erect stem topped by one or two quarter-sized flowers. The long, slender green leaves are sparsely arranged along the reddish stem. Both leaves and stem are hairy. Gravel flats: Pinto Wye, Jumbo Rocks. Mid-April through early May.

PLEASE leave the wildflowers here. By picking them, you deprive others of their right to enjoy them. **REMEMBER:** the flowers you take this year will not produce seed for next year's spring display.



Published by the
JOSHUA TREE NATURAL HISTORY ASSOCIATION
in cooperation with the
NATIONAL PARK SERVICE

